

## XP-002236299

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AP - JP20000365184 20001130

CPY - HITB

DC - A21 A81 A85 G03 L03 U11 U14

FS - CPI;EPI

IC - C09J7/00 ; C09J163/00 ; C09J201/00 ; H01L23/14

MC - A04-F01A1 A04-F06E6 A07-A04A A08-C01 A08-D01 A11-C01C A12-A05A

A12-A05C A12-E07C G03-B02D1 G03-B02E2 L04-C17D

- U11-A09 U14-H04A3

PA - (HITB) HITACHI CHEM CO LTD

PN - JP2001220556 A 20010814 DW200220 C09J7/00 005pp

PR - JP19990339036 19991130

XA - C2002-046930

XIC - C09J-007/00 ; C09J-163/00 ; C09J-201/00 ; H01L-023/14

XP - N2002-114404

AB - JP2001220556 NOVELTY - Novel adhesive film (P1) comprises a mixture of two kinds of resins, (A) and (B), that cause phase separation at the B stage of curing. When the resins cure, the ratio of (A) that separates out on the surface of at least one phase in the 5 micron deep layer from the surface is greater than that on the surface.

- DETAILED DESCRIPTION - Resin (A) has a modulus value at 25 deg. C of 3,500 MPa to 10,000 GPa.

- A cured product of (B) has a modulus value at 25 deg. C of 1-3,000 MPa.

- INDEPENDENT CLAIMS are also included for: (1) a manufacturing method of (P1) comprising coating an adhesive composition containing (A) and (B) onto the surface of a film showing a contact angle to water greater than or equal to 140 degrees; (2) a wiring substrate for mounting semiconductor chips (P2) that comprises layer(s) of (P1) on the surface(s) for mounting semiconductor chips of a wiring substrate; and (3) a semiconductor apparatus (P3) that was manufactured either by using (P1) as an adhesive member or by using (P2).

- USE - The adhesive film (P1) is suitable for manufacturing a wiring substrate for mounting semiconductor chips (P2) and a semiconductor apparatus (P3). (P2) is suitable for manufacturing (P3).

- ADVANTAGE - The adhesive film (P1) shows excellent adhesion strength and heat resistance. The wiring substrate for mounting semiconductor chips (P2) and the semiconductor apparatus (P3) are excellent in heat resistance and resistance to PCT (pressure cooker test).

- (Dwg.0/0)

IW - ADHESIVE FILM MANUFACTURE WIRE SUBSTRATE MOUNT SEMICONDUCTOR CHIP SEMICONDUCTOR APPARATUS COMPRISE MIXTURE TWO KIND RESIN CAUSE PHASE SEPARATE STAGE CURE

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NC - 001

OPD - 1999-11-30

ORD - 2001-08-14

PAW - (HITB) HITACHI CHEM CO LTD

TI - Adhesive film, used for manufacturing a wiring substrate for mounting

semiconductor chips and semiconductor apparatus, comprises a mixture of two kinds of resins that cause phase separation at the B stage of curing

- A01 - [001] 018 ; M9999 M2073 ; L9999 L2391 ; L9999 L2073 ; P0464-R D01  
D22 D42 F47
- [002] 018 ; M9999 M2073 ; L9999 L2391 ; L9999 L2073 ; P0088-R ;  
H0124-R
  - [003] 018 ; B9999 B4682 B4568 ; B9999 B5301 B5298 B5276 ; Q9999  
Q7454 Q7330 ; K9745-R ; ND01 ; B9999 B5094 B4977 B4740 ; B9999  
B3930-R B3838 B3747 ; K9483-R ; K9676-R
  - [004] 018 ; A999 A157-R